Catch, Size, and Tagging Data for Adult Salmonid Runs into the Keogh River, B.C., 1985

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ABSTRACT

Johnston, N. T., J. R. Irvine, and C. J. Perrin. 1986. Catch, size, and tagging data for adult salmonid runs into the Keogh River, B.C., 1985. Can. Data Rep. Fish. Aquat. Sci. 592: 80 p.

Data are presented on the daily catch, length, weight, sex, and maturity of upstream migrating adult pink, coho, and chum salmon, and Dolly Varden char enumerated at a temporary fish counting fence near the mouth of the Keogh River, B. C. between 26 July and 5 December 1985. Data are also presented on the location and date of recoveries of fish which were tagged at the counting fence.

RESUME

Johnston, N. T., J. R. Irvine, and C. J. Perrin. 1986. Catch, size, and tagging data for adult salmonid runs into the Keogh River, B.C., 1985. Can. Data Rep. Fish. Aquat. Sci. 592: 80 p.

Le rapport présente des données sur les prises quotidiennes et la longueur, le poids, le sexe et la maturité des saumons roses, coho et kéta adultes et des Dolly Varden dénombrés au moment de la remonte à un barrage provisoire de dénombrement près de l'embouchure de la rivière Keogh (C.-B.) entre le 26 juillet et le 5 décembre 1985. Il y a aussi des données sur l'emplacement et la date de reprise des poissons étiquetés au barrage de dénombrement.

INTRODUCTION

In order to compare the cost, reliability, accuracy, and precision of mark-recapture and Bendix side-scan sonar estimates of spawning salmon escapements against fence counts in a highly variable-flow coastal river, counting fences were operated near the mouth of the Keogh River, B.C., from 26 July to 5 December 1985. Details on the objectives of the study are given in Johnston et al. (1986). This report presents daily catch records, and length, weight, sex, maturity, tag recovery data, and tag recovery location for upstream migrating adult pink (Oncorhynchus gorbuscha), coho (O. kisutch), and chum (O. keta) salmon and for Dolly Varden char (Salvelinus malma).

METHODS

Upstream migrating salmonids were enumerated using the B.C. Fisheries Branch counting fence (Mottram 1977) between 26 July and 11 September, and using a cable-supported temporary fence (Johnston et al. 1986) thereafter. The location, description, and operation of the fences are given in Johnston et al. (1986), together with a detailed description of the tagging and measurement techniques. Briefly, a subsample of the daily catch was anaesthetized and marked with spaghetti tags or opercular punches, and the fork length, post-orbital to hypural plate length, adipose fin length, wet weight, sex, and maturity were determined. Lengths were measured to the nearest mm and weights to the nearest 50 g. The location and date of subsequent tag recoveries were noted. Recovery locations were measured in units of 100 m above the fence. The stream life was calculated as the interval (in days) between tagging and the subsequent recovery of the carcass.

RESULTS

Catch data are presented in Tables 1-3 for pink, coho, and chum salmon. The daily total fence catch less brood stock taken by the Northern Vancouver Island Salmonid Enhancement Association and less tagging and handling mortalities gives the spawning escapement upriver of the fence. The numbers marked are also given. A total of 33,921 pink, 993 coho, and 196 chum salmon were enumerated.

Size and other biological data are presented for individual fish in Tables 4-7. The data are briefly summarized in Johnston et al. (1986).

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